

APPENDIX IX

Magpie 2006 ILI Inspection: Executive Summary Report. (11+cover sheet).

Appendix IX

Executive Summary

J/OD

Run Information

Dixie Pipeline Company

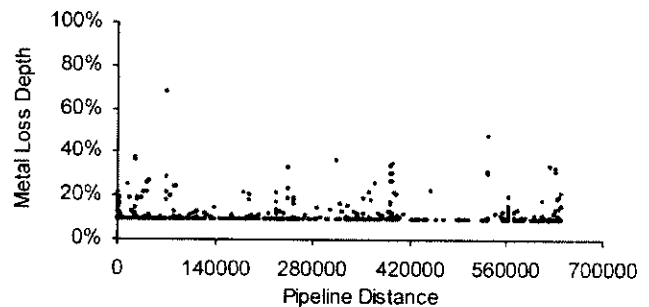
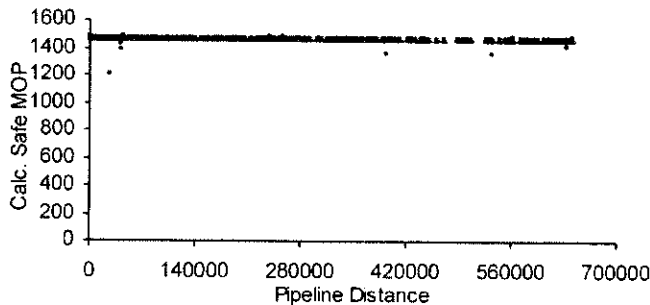
Hattiesburg Station to Demopolis Station
12 in Propane

	Launcher	Receiver
Location	Hattiesburg Station	Demopolis Station
Date / Time	3/29/2006 10:01:40 AM	3/30/2006 3:21:00 PM
Stationing	19397+61	25757+65
GPS - LAT	31.3762333	32.509066667
GPS - LONG	-89.2687333	-87.770483333
Duration of run - Hours	29.32	Average Velocity: 6.05 Ft/sec
Distance	639,016.00 ft	Maximum Velocity: 11.79 Ft/sec

Magpie On-site Representative: [REDACTED] Magpie Data Analyst: [REDACTED] Tool Tracking by: Dixie Pipeline Company

Inspection Findings

Current Established Maximum Pressure shown in psi		Criteria Used: Modified ASME B31G							
Operating Pressure of Pipeline: 1,454		(design psi used if Zero)		Defect Interaction Rule: 6X wall thickness between pits					
Welds detected	11,944	Valves detected	25	Fittings detected	45	Markers detected	230	Gains detected	95
Casings detected	26	Tees detected	18	Flanges detected	36	Repairs detected	32	Dents detected	12
Anomalies where P'<P*: 6			Metal Loss pits detected		1,106	Metal loss grouping of pits		758	
			Internal groups detected		155	External groups detected		603	



* The number of anomalies where P' (calculated safe max. pressure for an anomaly) is less than P (current established maximum pressure of pipeline) - see ASME B31G

Inspection Details

A total of 758 metal loss groups (155 Internal / 603 External) were detected on the inspection survey, of which the deepest is reported at 68%. Using an established maximum operating pressure of 1,454 psi, 6 of the metal loss features appear to be pressure reducing.

Inspection data was obtained for the full length (639,016 feet / 121.03 miles) of the survey. The quality of the inspection data is satisfactory for a comprehensive assessment of this pipeline segment.

Magpie's Deformation Pig inspected this line for reductions on March 28, 2006, prior to the MFL inspection. Ten (10) dents over 0.25 inch and two (2) dents under specification with metal loss were found in the inspection and are correlated into this report. The remaining deformations that were found under the 0.25 inch specification were compared with the MFL run and found not to be associated with any metal loss.

Magpie's Deformation tool had one damaged sensor on this run (# 13 out of 40 sensors) that failed at the beginning of the run and remained inoperable for the remainder of the pipe line segment. One (1) anomaly was identified that was affected by this sensor (0.26", 345609.5 feet). It has been manually sized to ensure accuracy. A "Failed Sensor DEF" letter was sent to Enterprise seeking permission to continue analysis on this run. Approval was received on April 18, 2006 from H. Buford Barr, Manager, Pipeline Integrity. A printed copy of this letter can be found under the "Inspection Summary" tab immediately following the Executive Summary. A "Miscellaneous" mark has been made in Pigtrap where sensor #13 passes through the anomaly.

The MOP for this section from Hattiesburg to Demopolis has four different segments with four different pressures from 1429 to 1454 psi. All the calculations are based on the highest MOP of 1454 psi.

Hattiesburg to Yellow Creek - 1454 psi (Hattiesburg - MP 367.5)
Yellow Creek to Carmichael - 1429 psi (Yellow Creek - MP 406.2)
Carmichael to Butler - 1448 psi (Butler - MP 443.8)
Butler to Demopolis - 1435 psi (Demopolis - MP 487.8)

Using the GPS data provided for markers and valves, including launch and receive, approximate GPS coordinates are provided for each weld, group (metal loss), deformation and any other feature along the pipeline route. Included on the report CD is a map file which graphically shows the position of Valves, Markers and welds. GPS accuracy is determined by the accuracy of the GPS data provided as well as the accuracy of the gyroscopes and accelerometers on-board the inspection tool. Coordinates are provided to assist in determining the general location of features, and are not intended to provide exact coordinates for locating defects.

Executive Summary - Deformation Inspection

Run Information

Dixie Pipeline Company

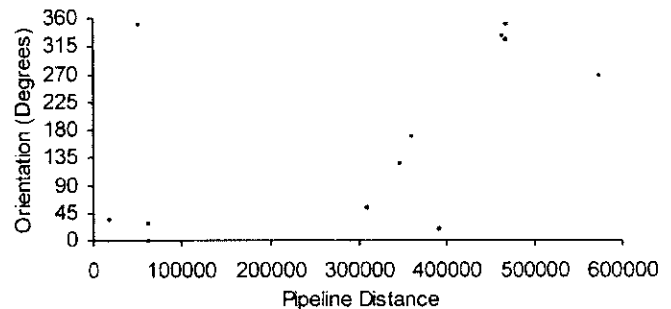
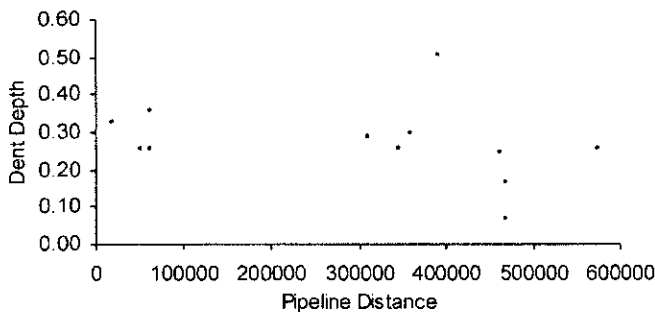
Hattiesburg Station to Demopolis Station
12 in Propane

	Launcher	Receiver
Location	Hattiesburg Station	Demopolis Station
Date / Time	3/27/2006 10:44:05 AM	3/28/2006 4:04:00 PM
Stationing	19397+61	25757+65
GPS - LAT	31.3762333	32.5090666
GPS - LONG	-89.2687333	-87.77048333
Duration of run - Hours	29.34	Average Velocity: 6.05 Ft/sec
Distance	639,016.00 ft	Maximum Velocity: 8.77 Ft/sec

Magpie On-site Representative: [REDACTED] Magpie Data Analyst: [REDACTED] Tool Tracking by: Dixie Pipeline Company

Inspection Findings

Dents detected 12 Ovalities detected 0 Expansions detected 0 Heavy weld detected 0 Valves detected 25



Inspection Details

A total of 12 deformations (12 dents) were detected on the inspection survey, of which the deepest is reported at 0.51 in.

Inspection data was obtained for the full length (639,016 feet / 121.03 miles) of the survey. The quality of the inspection data is satisfactory for a comprehensive assessment of this pipeline segment.

One sensor (#13) failed at the beginning of the run and remained inoperable for the remainder of the pipeline segment. A "Failed Sensor DEF" letter was sent to Enterprise seeking permission to continue analysis on this run. Approval was received on April 18, 2006 from H. Buford Barr, Manager - Pipeline Integrity. A printed copy of this letter can be found under the "Inspection Summary" tab immediately following the Executive Summary.



MAGPIE™
SYSTEMS, INC.

a T.D. Williamson, Inc. company

Failed Sensor DEF

Dixie 12" Hattiesburg Station to Demopolis Station

03/28/2006 Trap Date

Magpie's® Deformation tool had one damaged sensor on this run (# 13) out of 40 sensors. The sensor failed at the beginning of the run and remained inoperable for the remainder of the pipe line segment. The total length of the segment is 639,015.8 feet. This technology is a direct measurement of the internal pipe bore. The sensor spacing on this tool is one sensor every one inch around the circumference of the pipe wall. This sensor density is twice any other tool on the market. A damaged sensor leaves a gap of about 1.5" that is not measured for dents. It is our experience that there are virtually no occurrences of pipeline dents having a width of 1.5" or less. Dent indications with involvement of less than 3 arms (3" width) are very rare. The loss of one sensor thus should not affect the detection of any dents and will impact the depth sizing of a dent only if the maximum bore restriction occurs over this sensor. In this case the dent would be manually scanned by the data analyst to ensure proper sizing, and the dent description in the preliminary and final reports would note the involvement of a damaged arm. The only pipeline features we usually see on one channel, which could be missed, are a pig bar in a tee, the lever of a "pig sig" on the top of the pipe, or small (1" or smaller) mill anomalies such as a scab on the internal surface of the pipe wall that has partially peeled and is protruding into the pipeline bore.

Because of our confidence, we feel that a rerun is not necessary for this line segment. On this particular Enterprise run, there were two deformations that were affected by the failed arm. Both of these deformations were manually sized to ensure accuracy.

As an additional test, the MFL data for this line segment was also analyzed for dent signatures. MFL tools can detect dents in pipelines, but cannot quantify the depth of the dent. The MFL tool did not detect any additional dents not detected by the deformation tool in this line segment. If an additional dent was found that had occurred over the damaged deformation sensor, then the dent depth could not have been accurately measured, but since no additional dents were detected, we feel we have detected and sized all dents per the specification of our deformation tool located in this pipeline segment.

Therefore, we stand by the results of this inspection and feel that we have met the specifications of our Deformation tool.

Should you have any additional question please feel free to contact me at (800) 922-6088, ext. 1401.

██████████
V.P., Magpie Systems, Inc.

Prioritized Repairs

Magpie Systems Inc.

Immediate Repairs

Metal Loss

Dixie - 12" IDOD Hattiesburg Station to Demopolis Station

ID	Time	Dist. (ft)	Depth	Length	Width	Orient.	PSI (P')	Est. psi (P'/P)	% of	Latitude	Longitude
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Nothing found in this pipeline inspection meets the criteria for Immediate Repair conditions relating to METAL LOSS.

Prioritized Repairs

Magpie Systems Inc.

Immediate Repairs (if anomaly falls in an HCA area)

Dents Sorted by depth, then distance

Page 1

Dixie - 12" IDOD Hattiesburg Station to Demopolis Station

ID	Time	Dist. (ft.)	Depth(in)	Depth(%)	Orientation	Metal Loss?	On a Weld?	Description
Condition 1C								
14000009	78,641.2	467,964.0	0.170	1.42%	348	Yes	No	Magpie Correlated Deformation with associated metal loss
14000010	78,641.3	467,964.7	0.070	0.58%	324	Yes	No	Magpie Correlated Deformation with associated metal loss
Condition 1C Summary Number: 2								

Immediate Repair Conditions

Condition: 1C A dent located on top of the pipeline (above the 4 and 8 o'clock positions) that has any indication of metal loss, cracking or a stress riser.

Disclaimer: It is not possible for Magpie inline inspection tools to determine whether there is cracking evidence associated with a dent or whether the dent is on a stress riser.

Prioritized Repairs

Magpie Systems Inc.

60 Day Repairs (if anomaly falls in an HCA area)

Page 1

Dixie - 12" IDOD Hattiesburg Station to Demopolis Station

Dents Sorted by depth then distance

ID	Time	Dist. (ft)	Depth(in)	Depth(%)	Orientation	Metal Loss?	On a Weld?	Description
Condition 2A								
14000007	65,819.6	390,966.6	0.51	4.25%	9	No	No	Magpie Correlated Deformation
14000002	12,404.9	62,182.1	0.36	3.00%	3	No	No	Magpie Correlated Deformation
Condition 2A Summary								
Number of Dents: 2								
Condition 2B								
14000006	60,726.5	359,711.8	0.30	2.50%	177	Yes	No	Magpie Correlated Deformation with associated metal loss
Condition 2B Summary								
Number of Dents: 1								

60 Day Repair Conditions

Condition: 2A A dent located on top of the pipeline (above the 4 and 8 o'clock positions) with a depth greater than 3% of the pipeline diameter (greater than 0.250 inches in depth for a pipeline diameter less than Nominal Pipe Size (NPS) 12).

Condition: 2B A dent located on the bottom of the pipeline that has any indication of metal loss, cracking or a stress riser.

Disclaimer: It is not possible for Magpie inline inspection tools to determine whether there is cracking evidence associated with a dent or whether the dent is on a stress riser.

Prioritized Repairs

Magpie Systems Inc.

180 Day Repairs (if anomaly falls in an HCA area)

Dents

Sorted by depth then distance

Page 1
Dixie - 12" IDOD Hattiesburg Station to Demopolis Station

ID	Time	Dist. (ft)	Depth(in)	Depth(%)	Orientation	Metal Loss?	On a Weld?	Description
Condition 3B								
14000000	5,564.5	18,309.0	0.33	2.75%	60	No	No	Magpie Correlated Deformation
14000004	52,771.1	309,782.2	0.29	2.42%	63	No	No	Magpie Correlated Deformation
14000003	12,405.0	62,182.5	0.26	2.17%	45	No	No	Magpie Correlated Deformation
14000005	58,423.8	345,609.3	0.26	2.17%	117	No	No	Magpie Correlated Deformation
14000011	97,196.8	574,526.8	0.26	2.17%	276	No	No	Magpie Correlated Deformation
14000008	77,831.3	463,014.6	0.25	2.08%	342	No	No	Magpie Correlated Deformation
Condition 3B Summary								
				Number of Dents: 6				

180 Day Repair Conditions

Condition: 3B A dent located on top of the pipeline (above the 4 and 8 o'clock positions) with a depth greater than 2% of the pipeline's diameter (0.250 inches in depth for a pipeline diameter less than NPS 12).

Prioritized Repairs

Magpie Systems Inc.

180 Day Repairs (if anomaly falls in an HCA area)

Metal Loss

Sorted by depth then distance

Page 1

Dixie - 12" IDOD Hattiesburg Station to Demopolis Station

% of

ID	Time	Dist. (ft)	Depth	Length	Width	Orient.	PSI (P')	Est. psi (P'/P)	Latitude	Longitude
Condition: 3D										
40000088	6,556.2	24,634.8	38.0%	35.11	23.09	15	1211	83.3%	31.41433	-89.21236
40000518	66,170.1	393,135.0	30.5%	15.43	11.55	186	1360	93.5%	32.07995	-88.34845
40000621	90,312.9	531,249.9	48.0%	3.06	7.38	180	1370	94.2%	32.31260	-88.00817
40000151	9,263.7	41,962.5	26.6%	20.62	15.39	36	1398	96.1%	31.44831	-89.17541
40000728	107,391.4	631,826.0	31.8%	5.89	6.73	246	1419	97.6%	32.50557	-87.78872
40000149	9,263.0	41,957.7	22.3%	54.78	20.53	36	1428	98.2%	31.44830	-89.17543
Condition 3D Summary										
										Number: 6

180 Day Repair Conditions

Condition: 3D A calculation of the remaining strength of the pipe shows an operating pressure that is less than the current established maximum operating pressure at the location of the anomaly.



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Certificate of Calibration

This document certifies that the tool described herein has been constructed, tested and calibrated according to specified standards, and is validated to be within calibration and performance limits as described in published performance specifications. Once the calibration on this tool is completed and checked by Magpie® the tool is validated to be within calibration and serviceable for extended periods of time. Upon return to Magpie® the tool is then verified to still be within calibration parameters.

Dixie Pipeline Hattiesburg Station to Demopolis Station

Date tool was run.....03/28/2006

Magpie® Pipeline Inspection Tool I.D 12Dea2

Tool Size (nominal pipe size) 12"

Magpie® Calibration Standard used: DEF CALTEST CSV

Factors Influencing Performance

As referenced in the Magpie® tool specification, speed has a marked impact on data quality. Tool velocity exceeding 10 mph and tool surging caused by low or varying line pressure can negatively impact the inspection data. Low rates of speed do not adversely impact the capability of the tool to record and size indications as long as the tool moves. There were no areas of over speed in the inspection of this line.

Should you have any additional question please feel free to contact me at (800) 922-6088, ext. 1407.


Manager of Quality & Compliance

Dixie Hattiesburg Station, 12"

